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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/126,622	07/30/1998	CORMAC HERLEY	10970294-1	9131

7590 04/22/2005

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EXAMINER

QUIETT, CARRAMAH J

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/126,622		HERLEY, CORMAC	
	<b>Examiner</b>		<b>Art Unit</b>	
	Carramah J. Quiett		2612	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-17, 19-25 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-17, 19-25 and 27-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Examination of Application***

1. Effective immediately, the application is assigned to examiner Carramah Quiett. Please include the new examiner's name in the caption or heading of any communication submitted thereafter. Your cooperation in this matter will assist in the timely processing of the submission and is appreciated by the Office.

### ***Response to Amendment***

2. The amendment(s), filed on 4/16/2004, have been entered and made of record. Claims 11-17, 19-25, and 27-32 remain pending. As noted by the Applicant, claims 1-10, 18, and 26 had been previously canceled.

### ***Response to Arguments***

3. Applicant's arguments filed 4/16/2004 have been fully considered but they are not persuasive.

In response to Applicant's comments regarding the Examiner's previous Office Action, the Examiner respectfully disagrees. The Applicant asserts that the Examiner's reasons for rejecting claims 11-17, 19-25 and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weldy et al. (US #6,181,826) in view of Yamagata (US #6,263,106) is flawed. He also asserts, in reference to claims independent claims 14, 22, and 29, "... as neither of the documents relied upon by the Examiner teach or suggest releasing only a portion of compressed image data associated with a raw image, as is presently claimed." However, that particular

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limitation of claims 14, 22, and 29 are not cited as stated by the Applicant. Instead, the independent claim 22 is cited as:

A system of processing images in a digital camera wherein the digital camera includes primary and secondary storage areas, comprising:

means for inputting a raw image;

means for generating from the raw image, including employing a first quantizing step, a first compressed image data set suitable for reproducing substantially the entire image at a first quality level, the first compressed image data set being stored in the primary storage area;

means for generating from the raw image, including employing a second quantizing step independent of the first quantizing step, a second compressed image data set which when combined with the first compressed image data set reproduces substantially the entire image at a second, higher quality level, the second compressed image data set being stored in the secondary storage area; and

means for releasing space used to store the second compressed image data set in the secondary storage area of the image storage device to store the first compressed image data set when if insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set.

Please note that claim 14 is a method claim corresponding to the apparatus claim 22, and the limitations in claim 29 can be found in claims 22.

As far as the limitation, "...means for releasing space used to store the second compressed image data set in the secondary storage area of the image storage device to store the

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first compressed image data set when if insufficient space is available in the primary storage area of the image storage device to store the first compressed image data set,” is concerned, the Yamagata patent overcomes the shortcomings of Weldy patent by illustrating releasing space used to store compressed image data to store additional image data (Figs. 10-12; col. 10 line 16 – col. 12 line 33). Particularly, in fig. 12, Yamagata demonstrates how space is freed (another word for released) for more storing more files (col. 10, lines 44-65).

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 11-17, 19-25 and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weldy et al. (US #6,181,826) in view of Yamagata (US #6,263,106).

Claims 19-22 will be discussed first. Regarding claims 19-22, in figures 5, 7 and 8, Weldy '826 teaches a system of processing digital images comprising:

means for inputting a raw image (base image 16, image E/F/G/H, image AA-AN; col. 7 lines 44-62; col. 9 line 59 - col. 10 line 28);

means for generating from the raw image, including employing a first quantizing step, a first compressed image data set suitable for reproducing substantial the entire image at a first quality level (quantizer 30, base 8 bits 3 1; reconstruct lineage EF, spatially convert circuit 60A/6013; col. 7 line 44 - col. 9 line 14; col. 9 line 59 - col. 10 line 28; col. 15 line 43 - col. 16 line 44); and

means for generating from the raw image, including employing a second quantizing step independent of the first quantizing step, a second compressed image data set which when combined with the first compressed image data set reproduces substantially the entire image at a second, higher quality level (quantizers 32/34/36, base images 33/'35/37, reconstruct image GH, reconstructed image 59, spatially convert 60C/60N, combine images 61 and reconstructed image 63; col. 7 line 44 - col. 9 line 14; col. 9 line 59 - col. 10 line 28; col. 15 line 43 - col. 16 line 44).

Claims 19-22 differ from Weldy in that the claim further requires that the system of processing images in a digital camera including primary and secondary storage areas for storing compressed image data. Claims 19-22 also differ from Weldy in that the claim requires means for releasing space used to store the second compressed image data set in the secondary storage area to store the first compressed image data when insufficient space is available in the primary storage area of the image storage device. However, it is well known in the art to store and compress digital images having different compressed formats in a digital camera, as taught in Yamagata. In the same field of endeavor, Yamagata '106 teaches a digital camera (see Figs. 1-2) including an image data compression/expansion circuit (44) and an IC memory card (M), wherein image data files can be stored in the memory card (M) in different compressed formats (see Figs. 3 and 12). For the purpose of storing additional image data files when insufficient space is available, Yamagata further teaches means for releasing space used to store compressed image data to store additional image data (Figs. 10-12; col. 10 line 16 – col. 12 line 33). Particularly, in fig. 12, Yamagata demonstrates how space is freed (another word for released) for more storing more files (col. 10, lines 44-65). In light of the teaching from Yamagata, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

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include the system of processing digital images taught in Weldy in a digital camera in order to provide images having different compressed resolutions as desired by the user. Furthermore, in light of the teaching from Yamagata, it would have been obvious to one of ordinary skill in the art to modify the system of processing images in a digital camera taught in Weldy by storing the compressed image data in primary and secondary storage areas and permitting releasing space in the secondary storage area in order to store additional image data, thus ensuring that no images are lost due to the lack of capacity in the storage areas. It is noted that Yamagata teaches JPEG compression means (col. 1 lines 16-18; col. 5 lines 40-52).

As to claims **23** and **24**, Yamagata teaches that the images recorded in the image memory card can be selectively deleted or compressed (see col. 1 lines 35-44. In light of the teaching from Yamagata, it would have been obvious to one of ordinary skill in the art at the time the invention was made to release space in the image memory card in a first-in-first-out order or in a last-in-first-out order as desired by the user.

As to claim **25**, Yamagata teaches that the images having higher image quality are being selectively kept by the user (col. 1 lines 27-43; col. 5 line 27 - col. 6 line 36).

Regarding claims **11-17**, they are method claims corresponding to the apparatus claims 19-25, respectively. Therefore, claims 11-17 are analyzed and rejected as previously discussed with respect to claims 19-25.

Regarding claims **27-32**, the limitations in claims 27-32 can be found in claims 19-25.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571) 272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CJQ  
April 18, 2005



NGOC-YEN VU  
PRIMARY EXAMINER